10.—*A Contribution to the Study of the South African Higher Myodarii* (Diptera Calyptratae) *based mostly on the Material in the South African Museum.*—By Dr. J. Villeneuve.

(With eight figures in the text.)

It is intended to deal here with undescribed or little known species occurring in this region ; the others will be dealt with later in another communication.

The material which I have been able to examine was supplied by the Vienna Museum, the Entomological Research Committee of London, and the South African Museum of Cape Town. I here tender my thanks to Dr. Zerny and to G. A. K. Marshall, Esq., who have been kind enough to send it to me, and generously allowed me to retain duplicates. Dr. L. Péringuey, Director of the South African Museum, has been particularly active and obliging in forwarding numerous sendings of Tachinidae. Thanks to his efforts our knowledge has been considerably increased, and I cannot sufficiently express my gratitude. Lastly, Dr. J. Bequaert has collected several kinds at Durban, Natal, and Port Elizabeth, Cape Province. They are intended for the Congo Museum at Tervueren, Belgium.

There have been criticisms on the ultra-division of certain genera including numerous species, on the ground that it leads to too constricted sections. On the contrary, we approve and adopt this method, although it compels us to create again new genera. It proceeds, in fact, from the analytical method by inducing more precision ; it limits research, and makes study easier, and it appears to us to lead to incontrovertible advantages on practical lines. The study of the African Myodarii is not without difficulties. Some palaearctic species inhabit Africa also, and are there subjected to quite different influences of latitude and temperature. Are they new species or varieties ? Such question arises somewhat often. Thus *Phorinia Verritus* Walk. seems to be our *Phorinia aurifrons* Rob. Desv. with a different coloration varying on the frons and thorax from ashy-grey to golden bronze, and with a reduction of the discal abdominal setae. This lessening in length of the abdominal setae is found also in African examples of

Pachylophthalmus signatus Meig. *Voria ruralis* Fall. (*setosa* B. B. type) shows somewhat often some ciliae at the root of the 5th nervure of the wing, etc., but the most embarrassing instance is to be found in species with very variable coloration, such as *Rhinia apicalis* Wied., *R. nigricornis* Macq., and *R. testacea* Rob. Desv., which one would take for varieties of one kind if certain ♂ individuals were not pilose on the thorax and scutellum, whereas in others this pilose covering is reduced to the same degree as in the ♀. One meets also with examples of the common *Tachina fallax* Meig. in which the eyes are distinctly hairy (var. *pseudofallax* Villen.). I have seen also a ♂ of *Tricholyga sorbillans* Wied. in which the hairiness of the eyes is short and scattered, although the example is perfectly well preserved.

Fam. TACHINIDAE.

Sub-Fam. TACHININAE.

Gen. DEJEANIA Rob. Desv.

Dejeania nigrapex, n. sp.

A robust species. Same coloration as *D. bombylans* Fab., from which it differs in several characters: abdomen with the three first segments entirely yellow and totally without discal setae; fourth segment black and bristling with prickly hairs except on a narrow, yellow, barren anterior band; wings uniformly greyish without any rufous band towards the base; palps yellowish, thick all along the length, covered with small black hairs without long setae, they reach the end of the proboscis, which is shiny black; antennae and chaetae dark brown; second joint of the chaeta little elongated, plainly shorter than in *D. bombylans*. Sternopleural setae = 1 + 1; no fine setae on the genae; no orbital setae in the ♂.

Length 15–16 mm.

1 ♂ and 1 ♀ from "Cape of Good Hope," Vienna Museum.

PLEROPELETERIA, n. sub-gen.

A pair of discal setae a little in front of the marginal setae on segments 2 and 3 of the abdomen in the manner of the sub-genus *Chaetopeleteria* B. B. The ♂ has several orbital setae. On the genae there is an entire row of erect setae in front of the eyes and as well developed as the frontal setae, the latter belonging to the ascending

type of Hough, form above the insertion of the antennae an arc of circle situated between the orbital setae and the genae.

PLEROPELETERIA PERINGUEYI, n. sp.

Pleropeleteria peringueyi resembles *Chaetopeleteria popelii* Portsch. and is of the same colour. It differs, in addition to the sub-generic characters given above, by the somewhat wider frons; in the genae the width from top to bottom is equal. Antennae and chaetae blackish; legs entirely black. The thorax bears 4 dorso-central setae behind the suture.

Length 11 mm.

A ♂, from Cape Town, sent by Dr. L. Péringuey.

GEN. MICROPALPUS Macq.

MICROPALPUS CAFFER, n. sp.

Resembles so much *M. prohecate* Speis., that the examples belonging to the Hofmuseums, Vienna, have been wrongly identified with it by Speiser himself. It differs by: (1) The presence on the second and third abdominal segments of sharp bristles interpolated on one side with the discal setae and on the other with the marginal; (2) the presence on the medio-ventral region of robust bristles on each segment, as in *Dejeania* Rob. Desv. The antennae are dark rufous, the legs are testaceous, including the tarsi, which are provided in the ♂ with long claws and yellowish pulvilli.

The size is that of *M. prohecate*, the abdomen, which is also without medio-dorsal band, is a little wider and more massive, the colour varies from yellowish testaceous (Natal) to mahogany red (Nyassaland). Examples from Tanganyika are brownish red, and have smoky wings and somewhat brownish tarsi.

Several examples. Natal. Durban (H. W. Bell-Marley), S. Afric. Museum; Nyassa, Mt. Mlanje (S. A. Neaves), Entom. Research Commission; Tanganyika region (Grauer), Vienna Museum.

MICROPALPUS PARCESETOSUS, n. sp.

Elongate; characterised by the small number of frontal setae and by its sexual dimorphism, the ♂ having the facies of *M. angulicornis* Speis., the ♀ resembling altogether *M. frater* and *M. lithosiophaga* Rond.

♂. Face whitish, orbits yellowish, antennae blackish, third joint wide, partly obscure rufous; proboscis as usual, palps comparatively

developed, a little longer than the terminal hair, testaceous. Surface of the peristome and higher occiput without small black setae. The somewhat short frons has 1 pair of long vertical inner crossed setae, 2 ocellary setae diverging in front, and on each side developed ascending frontal, 2 or 3 reduced transfrontal, and 2 setae under the insertion of the antennae. Thorax ashy yellow with the usual obscure bands: 3, sometimes 4 dc.; st. = 2 + 1; pteropleural seta like the anterior sternopleural. Scutellum partly rufous. Abdomen testaceous-yellow, 1st segment wholly black above, but only in front on the sides; a black medio-dorsal band, partly hidden by the light ashy down, runs across the 2nd segment and expands in a triangle on the 4th segment, the rest of the segment and the hypopygium being red. The 2nd segment has no discal seta, the 3rd has a pair. Legs testaceous, marked on the anterior face of the femora with a black spot at their insertion, and with another near the knees assuming often the shape of a small band; the tibiae are more or less darkened on the external side, the tarsi are black. Claws and pulvilli hardly elongate. The colour of the legs recalls that of *M. affinis* Cort.

♀. Ashy white, orbit greyish, scutellum rufous at apex; abdomen sectioned by transverse bands having a black sheen; end of last segment widely red. Legs of the same colour as in the ♂, the anterior tarsi dilated. Antennae narrower and more elongate.

In the two sexes, the 1st nervure of the hyaline wing is naked, and the 3rd is finely ciliate close to the small transverse nervure.

Length 8–10 mm.

N.W. Rhodesia (Chilanga); Nyassaland, Mt. Mlanje (S. A. Neave) Entom. Res. Comm.; Cape Town, Graham's Town, bred from *pupae*. S. Afric. Museum.

Gen. TACHINOMIMA Br. & Berg.

Tachinomima laxiceps, n. sp.

Elongate; blackish on the thorax and scutellum, the latter partly dull reddish. Abdomen moderately shining, testaceous red; 1st segment black in the hollow; 4th black in the two posterior thirds, having a pruinose whitish band on the anterior, or sometimes of the same colour as the other segments and black at the end only. A medio-dorsal band, sometimes entire, sometimes stopping at the end of the 2nd segment, sometimes also almost totally obliterated, unites or tends to unite the two black extremities of the abdomen. Legs black

with the tibiae partly testaceous; anterior claws of the ♂ elongate: anterior tarsi moderately dilated in the ♀. Wings somewhat greyish, the third nervure is ciliated moderately far, to some distance of the small transverse nervure, the posterior transverse nervure is slightly sinuose, set very near the cubitus of the fourth nervure and lying in the prolongation of the apical nervure. Squamae whitish, halteres dark testaceous towards the base. The abdomen bears a pair of discal setae on segments 2 and 3; venter with long, moderately robust black setae on the sternites. Thorax with 3 dorso-central setae, 2 + 1, sternopleural setae strong and long, especially the hind one; pteropleural seta like the latter.

The head is the characteristic part of this species. The vertex is wider than the eye in both sexes, the frons is bulging, the genae are developed, the peristome is twice the length of the genae and has a few long black setae bending forward planted on its surface. Proboscis black, very long, thinned as in *Trachinomima* B. B.; palps rudimentary and looking like small spindles shorter than the terminal hair. Antennae moderately long and blackish, the second joint of the chaetae more elongate than in *T. longirostris* Macq. Superior part of occiput without small black setae. In the two females at my disposal (the setae are broken in the ♂), there are 2 vertical setae, the inner of which is directed backwards, and a prevertical seta turning outwards. The frontal setae extend down the genae to close to the eye; they number 3 or 4 and are scattered, outwardly with them are small black setae situated in front of the orbital setae and scattered on the genae instead of assuming there the fasciculate arrangement obtaining in *Trachinomima* (due, doubtless, to the greater width of the frons, which would account for the scattering of the setae).

Length 13 mm.

Hab. Cape Town. S. Afric. Museum; Cape of Good Hope (Vienna Museum); Natal. Entom. Res. Com.

PLAGIOCOMA, n. gen.

Fig. 1.

This genus is in fact a *Micropalpus* the genae of which bear several rows of long ciliae continuing those that cover the orbital region. I have seen one female only captured at Port Elizabeth (Cape) by Mr. J. Bequaert. The anterior tarsi are somewhat strongly dilated, and the abdomen does not exhibit the characters assigned by Brauer and Bergenstamm to their genus *Chaetophthalmus*.

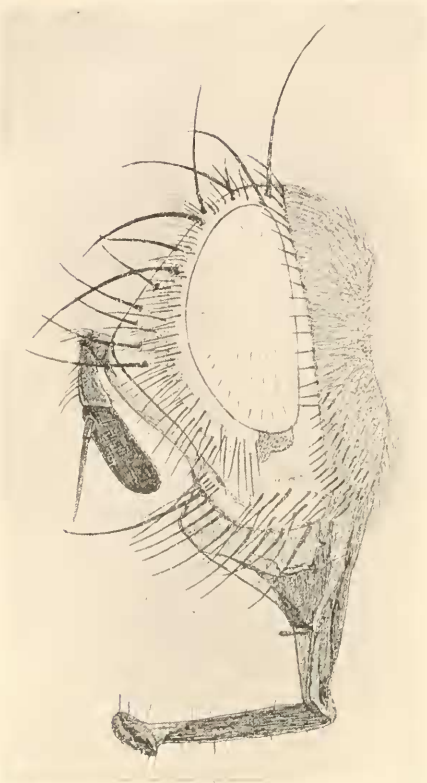

Fig. 1. ♀.

Plagiocoma crassiseta, n. sp.

A robust species. Head with red background, covered with a whitish indumentum, frontal band rusty red; frons projecting and as broad as the diameter of the eye; orbits, genae and peristome broad. Owing to the narrowing of the hind part of the frons the vertex is only the width of one eye. Antennae black, moderately long, the apex rounded at its anterior angle; chaeta also black, thickened to the end, the second joint short. Proboscis little elongate, as usual; its second segment a little longer than the first, deflexed, black, labella also black. Palps very short, thickened, bearing very small black hairs. The frontal setae include inner crossed vertical setae, and less long inner ones, 1 prevertical seta turned outwards, and 1 pair of developed ocellary setae; 3 frontal setae set in an arcuate row below the inser-

tion of antennae are noticeable. The upper occiput is without small black setae; but the surface of the peristome bears long setae. Thorax black, with 4 dark bands and 3 dc.; scutellum and shoulders testaceous, a band of this colour surrounds the tergum except in front. Sternopleural = 2 + 1; pteropleural, as developed as the anterior and inferior sternopleural. Abdomen moderately wide, dark red testaceous obscured by a weak ashy pruinose down, bands with whitish or obscure sheen according to the light; segments 2 and 3 with a pair of discal; strong marginal setae are visible on the medio-ventral region of all the segments. Legs black with the tibiae partly testaceous. Wings hardly tinged with grey; 3rd nervure with 5–6 ciliae at the base, the transverse posterior nervure, inserted very near the cubitus of the 4th, is arcuate at the base only, then straight and reclining in the prolongation of the apical nervure. Squamae whitish; halteres testaceous.

Length 13·5 mm.

Gen. STOMATOMYA Villen.

Stomatomya metallica, n. sp.

Resembles wonderfully *Campylochaeta glauca* Karsch. = *metallica* Bez. Differs by the long claws of the anterior legs in the ♂, the long, crossed, more or less erect setae of the scutellum, and by the wings provided with a costal spine and having an appendage to the cubitus of the 4th nervure. The coloration is metallic-blue mingled with violet; wings hyaline, squamae white, halteres dark, testaceous at base; legs wholly black.

The chaetotaxy is the same as in *Campylochaeta glauca*; there are no ciliae where the frontal setae end, and the pair of discal setae on the 2nd and 3rd abdominal segments are variable, and often mixed with other small erect setae. The size is the same, the facies a little more robust.

Length 8–11 mm.

Southern Rhodesia, Salisbury (Dept. of Agric.), bred from the caterpillar of a Noctuid moth of the genus *Athetis*; Natal, Durban (H. W. Bell-Marley); M'fongosi, Zululand (W. E. Jones); S. Afric. Museum.

Gen. STURMIA Rob. Desv.

Sturmia (Crossocosmia vix) aurifrons, n. sp.

There is in Africa a group of species in the ♂ ♂ of which the pulvilli and claws are elongated (the latter are often truncate), the

two first abdominal segments are without median marginal setae (or if there are some on the second segment they are slender and decumbent). These characters do not, however, obtain in the ♀♀, which show median setae slender on the first segment, and well developed on the second. This leads to the group *Blepharipoda* B. B., *sensu stricto* represented in the African fauna by a very large number of species difficult of distinction or of good characteristic description.

S. aurifrons is widely spread in Southern and Tropical Africa. The head is yellowish, bright golden on the frons and occiput; thorax opaque or bronzy flavescent, sectioned by 4 black, narrow lines, the outer one semi-colon shaped; the scutellum is of similar hue, the background being partly rufescent. The background of the abdomen is reddish, easily noticeable laterally, the first segment appears to be black, the following segments show each a dark posterior band, and a bright ashy one in front, the latter is intersected by a medio-dorsal black band. In the ♂ the third segment carries on the ventral side an obscure spot covered with appressed black hairs and situated on each side of the median line. The wings are greyish, light brown at the base and along the anterior border, the hue becoming thinner beyond the small transverse nervure. Squamae whitish-yellow or dirty white; halteres testaceous, the club fuscous. Legs black, the tibiae more or less ferrugineous in the centre. Antennae blackish; the second joint obscurely testaceous, the third twice and a half as long as the second. Palpi dark at the base, yellow, and thickened towards the apex.

The ♀ is of the same colour as the ♂, but the abdomen is opaque and the bands are wider and more densely ashy.

Chaetotaxy: frontal setae rather short, and not reaching in front the apex of the second antennal joint, which is a little elongated; there are often black ciliae below the end of the genae. In addition to the crossed frontal setae, one counts on each side 2 ascending frontal, 2 setae on the vertex, the outer being slender in the ♂ and thickened in the ♀; ocellary setae absent but distinct in the ♀, which bears two orbital ones. There are a few small black setae above the large vibrissae, but none on the upper occiput at the back of the ciliae. Thorax: dc. = 4; st. = 2 + 1. Abdomen: segments 1 and 2 void of marginal setae in the ♂; segment 1 with 2 weak median, segment 2 with 2 median, valid and erect in the ♀, and similar to those forming the complete row always found on segment 3.

Wings: Costal spine most minute; 2–3 ciliae above and under at the base of the third longitudinal nervure. Cubitus of the fourth nervure straight, the apical transverse arcuate, the posterior transverse little flexed and distant from the cubitus.

Length 10–13 mm.

A good number of individuals from Nyassaland, Mt. Mlanje (S. A. Neave); some from Uganda; one from Sierra Leone (J. J. Simpson); one from Zululand, M'fongosi (W. E. Jones); S. Afric. Museum, etc.

Sturmia (Blepharipoda) semitestacea, n. sp.

This species is in size and general appearance like the European *S. sylvatica* Fall. It belongs to a group of *Sturmia* in which the ♂ has short fore claws, and the second abdominal segment is provided with two marginal setae as much developed as in the ♀. It is distinguished by: (1) the development of the ocellary setae which in length and robustness approximate the inner vertical seta, and the same obtains for the ascending frontal setae; (2) the colour of the abdomen; the first segment is blackish above and under; the second and third are light testaceous red veiled by a greyish white down in the ♂, denser than usual in the ♀, edged with black behind and crossed by an obscure medio-dorsal band; fourth segment thickly ashy white. The ♂ bears a large, black, ovate latero-ventral spot (resulting especially from the compressed shape of the abdomen in the ♂ ♂ of this group; there are cases where this ovate spot is thrown out laterally) resting on the hind border of segment 3, and covered with appressed and closely set hairs; another small and triangular patch is discernible on the same level on segment 2. The scutellum rufous, with a dusting of ashy grey thicker on the ♀, and with two weak setae moderately long and crossed at apex. Thorax ashy grey with the usual black lines: dc. = 4; st. = 2 + 1, sometimes 2 + 2. Head whitish; orbits slightly ashy, wider than the frontal band, which is black; width of vertex: ♂ = $\frac{1}{5}$ of the eye: ♀ = $\frac{6}{5}$ of the eye. Genae bare, as wide as the orbits; peristome as wide as the prominence of the frons in front of the eye. On each side are two ascending setae, the others reach the end of the second antennal joint, which is testaceous, and the third is about four times as long and blackish. Above the larger vibrissae are small reclining setae reaching beyond the lower third of the epistome. Upper occiput without black setae behind the ciliae. Palps cylindrical, yellow. Wings somewhat greyish, cubitus of the fourth nervure almost straight, and with a short dark reflection in the form of an appendage; apical transverse weakly arched; posterior transverse little wavy, situated far from the cubitus; costal spine absent; three ciliae at the base of the third nervure above and below. Squamae whitish; halteres testaceous. Legs black; the tibiae sometimes testaceous in the centre; hind tibiae with long ciliae together

with a long median seta underneath which the ciliae are a little shortened.

Six examples from the S. Afric. Museum. 1 ♀ from Nyassaland (Dr. J. E. S. Old), Entom. Res. Comm.

Sturmia (Blepharipoda) angustifrons, n. sp.

Belongs to the same group as the preceding species, and is likewise remarkable owing to the ocellary setae and the ascending frontal setae. It is characterised by its small size (10–12 mm.) and its less wide shape; by the narrow frons ($\frac{1}{2}$ eye to vertex in the ♂, $\frac{2}{3}$ in the ♀) having lateral, parallel borders little jutting out, with orbits less wide than the frontal band. The result is that the genae being of the same width as the orbits, and the peristome as broad as the protuberance of the frons, a larger development of the eyes follows. The two apical crossed setae of the scutellum are very long and robust. Face with a white sheen, orbits slightly bluish; antennae black, moderately narrow, third joint hardly four times the length of the second; chaeta pubescent. The occiput bears at its median part a row of small black setae behind the ciliae, but these setae seldom reach the upper part. Palps blackish, thick and yellowish at tip. Labella testaceous. Thorax obscure, sprinkled with ashy grey, with four fine black lines, the scutellum partly red; dc. = 4; st. = 1 + 1 + 1, the intermediate slender. Abdomen: First segment darkish; the others with a white band ashy grey in front, and a black band not definitely separated behind. In the ♂ the second segment and the anterior portion of the third is reddish, and the latter bears on the ventral side a rounded, deep black spot covered with decumbent closely set black hairs. Wings tinted with light brown at the base and along the anterior border as well as in the proximity of the longitudinal nervures. There are two ciliae at the base of the third nervure. Cubitus of the fourth nervure blunt, straight or a little obtuse, the apical transverse vein weakly arched, the posterior S-shape, and remote from the cubitus. Squamae creamy-white; halteres testaceous. Legs black with the tibiae sometimes brownish-red; the posterior with moderately equal ciliae and a median seta.

In the only ♀ example seen, the wings are hyaline, and the sides only of the second abdominal segment are reddish.

Natal, Durban, 4 examples (H. W. Bell-Marley), S. Afric. Museum.

STURMIA (ARGYROPHYLAX) DILABIDA, n. sp.

This species has with *S. atropivora* R. D., which also occurs at the Cape, several characters in common, viz.: head broad, with 2 rows of frontal setae; antennae of similar shape; 4 stenopleural setae; 6 marginal setae on the third abdominal segment.

It differs by the ocellary setae which are inserted on each side of the inner ocellus (it is in front of the ocellus in *S. apivora*); by a row of small black setae situated at the back of the ciliae on the upper occiput (they are wanting in *S. atropivora*); by the antennal chaeta, which thickens as the one half only; by the colouration, which is light ashy, slightly flavescent; thorax with 4 narrow black lines, the outer ones semi-colon-shaped; abdomen less massive, narrower, thinly and transversely banded with black, the last segment broadly black at apex. The hind part of the orbits and the ocellary space also ashy flavescent. Scutellum partly reddish. Palps cylindrical, blackish, arcuate and often reddish at the tip. Wings with the cubitus of the 4th nervure straight or hardly obtuse, the apical curved near the cubitus only, the hind transverse sinuose at base and thence nearly straight, remote from the elbow; costal spine wanting, one single cilia at the root of the 3rd nervure. Squamae whitish; halteres dark, testaceous at base. Legs black, fore claws of the ♂ moderately elongate; hind tibiæ ciliate, and with a median interposed seta. The chaetotaxy is the same as for *S. atropivora* R. D.

Length 8 mm.

Natal, Durban, S. Afric. Museum.

GEN. SERICOPHOROMYA Aust.

The genus *Sericophoromya* Aust. includes species which differ from the genus *Winthemia* R. D. only by their larger size (about 12 mm.), and especially by the minute claws of the anterior tarsi of the ♂; the abdomen is yellowish red on the first two segments, a medio-dorsal black band crosses the second segment; this band is sometimes narrow (*S. marshalli* n. sp.), but oftener it becomes a triangular spot (*S. quadrata* Wied.; *S. claripilosa* Aust.; *S. ruficrura* n. sp.). The thorax is noticeable owing to the abundant flavescent, woolly villosity, always to be found on the pleurae, but invading thence the tergum, scutellum, and abdomen in *S. quadrata* Wied.; or restricted on the dorsal side to the hind border of the thorax, the scutellary calluses and the sides of the scutellum in *S. claripilosa* Aust., in which it extends to the ventral surface of the abdomen and on the sides, and also on the inferior edge of the femora.

In the first-named species the vibrissae ascend the facial ridges in the manner of the *Phoroceratidae*, whilst in *S. claripilosa* and the other species there are only a few reclining small setae above the large vibrissae. The abdomen in *S. quadrata* and *S. claripilosa* reaches its greater width at the second segment; segments 3 and 4, through being united, form a blackish cone edged by a narrow white or grey band on the anterior part of segment 3. In *S. marshalli* and *S. ruficrura* the sides of the abdomen are about parallel, and segment 4 is short and transverse, at least in the ♂, because the abdomen of the ♀ assumes the conical shape.

Sericophoromya marshalli, n. sp.

This species, as also the one following, is so near *Winthemia*, owing to the parallel shape of the abdomen, the lanuginose villosity limited to the pleurae, the short and directed forwards (descending) frontal setae, and by the absence of marginal setae on the two first abdominal segments in the ♂, that they might be mistaken for that genus. The legs are entirely black as in *S. claripilosa* Aust.; the characters already mentioned above separate the two as well as the colour of the abdomen, which is testaceous red on the first two segments and also on the anterior half of the third; the rest is black, and the extremity of the last segment is red in the ♂, and often black in the ♀, which has a short scooped oviduct. The median excavation of segment 1 is black, and from it begins a medio-dorsal band crossing segment 2; this band, usually even and somewhat narrow, is often wider in the ♀ and rarely assumes the triangular shape. The last three segments bear an anterior band of ashy down. The tergum is dusted with flavescent and has four black lines; the scutellum is testaceous and more obscure at base. The head is of the same shape as the other species, and has a yellowish indumentum; the hairs on the genae are pale, whereas they are black in *S. claripilosa*. Wings hyaline; narrower and hardly reaching the apex of the abdomen in the ♂.

Natal, Durban (H. W. Bell-Marley), S. Afric. Museum; Umgeni Riv., Gold Coast, Ahuri (W. H. Patterson); Uganda (C. C. Gowdey); British East Africa (G. Pugh); Nyassaland, Mt. Mlanje, where it was captured by S. A. Neave in company with *S. clarissima* Aust. Entom. Res. Comm.; Madagascar and Tananarive (Lamberton).

I call this species after Mr. G. A. K. Marshall. I had already described it in a note on the Higher Myodarii collected in Madagascar, and which was to be published abroad, but of which I heard nothing since the beginning of the war.

Sericophoromya ruficrura, n. sp.

This species has not to my knowledge been met with as yet in South Africa, but its great resemblance to *S. marshalli*, all the characters of which except the colour of the legs, which are testaceous with the tarsi blackish, justifies its inclusion here. The tibiae are fuscous towards the proximal third, and sometimes further. In *S. ruficrura* the medio-dorsal black band of the second abdominal segment is broad and more or less trapezoid in shape.

Several examples from Nyassaland, Mt. Mlanje (S. A. Neave), and one from the Gold Coast, Ahuri (W. H. Patterson), Entom. Res. Comm.

Gen. CARCELIA Rob. Desv.

Carcelia angulicornis, n. sp.

The study of the African species of the genus *Carcelia* R. D. is more difficult than that of the palaearctic species, because usually the tibiae are black like the rest of the legs, or at least are very dark. If to this is added a tendency to individual variation, the division of the species is full of snares, and almost impossible unless there is an abundance of material. Nor easier it is to connect them with other known species, and to be sure that a species is not simply a variety due to climatic influences. I have therefore postponed the study of the moderately large material I have, and restrict myself at present to a single well-characterised species, *C. angulicornis*, n. sp.

The typical examples come from Southern Nigeria, Oshogbo (J. T. G. Mayer). The frons in the ♂ measures $\frac{2}{5}$ of the length from the eye to the vertex, and hardly more in the ♀ ; the nearly parallel borders diverge a little forward where the frons is moderately projecting. The genae are narrow, especially below, and the peristome is quite linear. The yellow palps are clubbed. The antennae are remarkably long, covering the whole epistoma as far as the mouth (the third joint is 7 times as long as the second) ; they are black and bear a very long and fine chaeta thickened and slightly pubescent in the proximal third. The shape recalls that of the genus *Hemimacquartia* B. B., of which it is said : " Antennae supra medium oculorum . . . articulus secundus brevis, tertius longissimus, latus, basi crassior, antice ad basin convexus " (Brauer and Bergenstamm, par. 3, p. 101). In the ♂ the antennae are very characteristic ; in the ♀ the third joint is seldom as much thickened or as convex at the base. The orbits are ashy yellow, especially in the ♂, wider in front than the

frontal black band, narrower behind (♂) or of equal width (♀). Thorax ashy with a wash of flavescent and with the four usual black bands; scutellum dark, testaceous on its free border. Abdomen black, the three last segments with an ashy pruinose band not clearly defined and intersected by a narrow black line. The wings are somewhat greyish in the ♂, moderately clear in the ♀; the cubitus of the fourth nervure is at right angle; the apical transverse arched above the cubitus, then straight; the posterior transverse oblique, little flexed, moderately removed from the cubitus; two or three ciliae at the base of the third nervure above and under; no costal spine. Squamae white with a tinge of yellow; halteres dark, testaceous at base. Legs black, with the tibiae sometimes brownish red. Fore claws of ♂ moderately elongated.

Chaetotaxy: 2 ascending frontal setae (sometimes 3 in the ♂); 3 spaced setae going beyond the insertion of the antennae, the last one situated below the antennal chaeta; 2 long ocellary setae turned forwards; 1 long and robust inner vertical seta turned backwards, 1 external vertical turning outwards, short and weak in the ♂, more developed in the ♀. Thorax with 4 dorso-central setae and 2 + 1 sternopleural. Scutellum with 3 long marginal and a pair of apical, crossed setae, the setae developed, not erect. Abdomen: segments 1 and 2 with 2 median marginal setae, segment 3 with a row of 8; all these setae erect. No discal setae; segment 4 bristling with short setae in its terminal half or more. Higher occiput without small black setae at the back of the ciliae; 3–4 small reclining setae above the great vibrissae, which are long and robust. The hind tibiae are somewhat regularly ciliate with a small median seta. Length 8–10 mm.

In addition to examples from Southern Nigeria, I have received 2 typical ♀ ♀ from Nyassaland, Mlange, collected the one by H. Brown, the other by S. A. Neave.

The South African examples differ a little from those above cited by the slightly wider frons, the frontal setae, 2, seldom 3, of which impinge on the genae, but in any case they are not spaced, and consequently do not reach beyond the antennal chaeta. The hind transverse of the wing is more sinuose; the base of the third nervure often bears 5 ciliae. The examples are all ♀ ♀; some, hatched, are greyish with the squamae whitish, but in all the antennae are normal.

Sensu stricto, this species, owing to its sternopleural setae, is an *Exorista*; nevertheless, I include it in the genus *Carcelia* on account of its other affinities. It inhabits the same region as *Carcelia evolans* Wied., which it greatly resembles. *C. angulicornis* is elongated and

narrower; *C. evolans* belongs to the large-bodied group, and has only 1 + 1 sternopleural setae.

Gen. EXORISTA Meig.

Exorista pilipes, n. sp.
Fig. 2.

A species which ought to be in a genus by itself. It has 2 sternopleural setae as in the genus *Carcelia* R. D., but the head is different

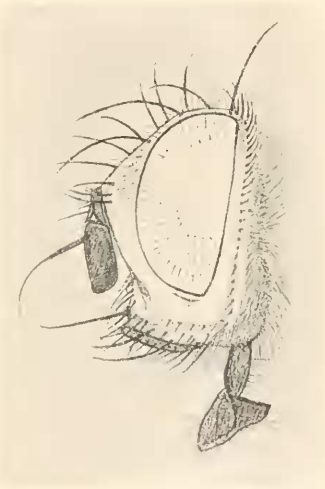

Fig. 2. ♀.

and resembles that of the genus *Blepharipoda* B. B. Peristome wide, as is also the projection of the frons, antennae short, great vibrissae inserted a little above the buccal opening. In the ♂ the anterior tibiae are villose inwardly, the villosity is very long in the median part.

Exorista pilipes has the habitus and coloration of the palaearctic *E. glauca* Meig. Head white with chalky sheen; frons nearly equal in the two sexes, equal to half the diameter from the eye to the vertex; frontal band as broad as the orbits. Frontal ciliae somewhat slender, projecting little beyond the insertion of the antennae, and hardly reaching the middle of the second joint; 3 or 4 ascending frontal on each side; 1 pair of ocellary setae, well developed but moderately

slender, pointing forwards; 1 pair of long, vertical, crossed, inner setae; no external vertical setae. Antennae black, moderately broad; joint 3 about 3½ times as long as joint 2; chaeta black, long, attenuate at apex, thickened in its first third. Palpi black. Upper occiput with whitish villose hairs and without small black setae at the back of the ciliae. Thorax with 4 obscure bands, the median shortened, the lateral interrupted, 4 dorso-central setae. Scutellum rufescent, dark at base; the crossed apical setae as well developed as the marginal. Abdomen: segments 1 and 2 with 2 median marginal setae, segment 3 with a complete row of 8–10 setae. No discal setae. Hypopygium hidden. Wings hyaline; cubitus of nervure 4 straight or sub-acute; apical transverse arched after the cubitus, then straight, long in the ♂, less so in the ♀; posterior transverse more or less sinuose, distant from the cubitus. No costal spine, 3–4 ciliae at the base of the 3rd nervure. Squamae whitish; halteres obscure, testaceous towards the base. Legs black; hind tibiae with the setae unequal and distant; claws of ♂ very long.

Length 10–12 mm.

Several examples from Natal, Durban (H. W. Marley); S. Afric. Museum; Uganda (C. H. Marshall); Sierra Leone (J. J. Simpson); Southern Nigeria (J. J. Simpson), Entom. Res. Comm.; Belgian Congo (my collection); 1 ♂ from Madagascar. The examples from Uganda are dark grey with the scutellum non-rufous, of the same colour as the thorax; among those from Southern Nigeria is a ♀ with a lilac sheen on the head. Of the Congo examples, 1 ♂ has a slightly yellowish head, and the villosity of the occiput is flavescent.

Gen. CATAGONIA Br. & Berg.

Catagonia subdistincta, n. sp.

Differs from the palaearctic *C. aberrans* Rond. by the frontal setae descending on the genae to the number of 3 or 4 as far as the antennal chaeta or further underneath; no ciliae at the terminal. In *C. aberrans* there are two setae only on the genae, not projecting beyond the level of the lower end of the 2nd antennal joint, and also fine ciliae below these setae. Moreover in *C. subdistincta* the frontal band is less broad and the scutellum more rufous on its free border. The other characters of the two species are identical.

Two ♂ ♂ from Natal, Durban (H. W. Bell-Marley), S. Afric. Museum.

Gen. NEMORAEA Rob. Desv.

Nemoraea capensis, Schiner.

Schiner has described under this name a good species which does not belong to the genus *Nemoraea* because the cubitus of the 4th nervure has no prolongation, and that there are 3 sternopleural setae; this last character removes it from *Winthemia* R. D. and from *Sericophoromya* Aust. Schiner's species bears on the tergum the 3 normal pairs of acrostical setae in front of the suture; it is therefore not a species of *Ernestia*. It most nearly approximates the genus *Chaetolyga* Rond., Gieschn. *s. strict.*, but the hairiness of the genae is found, in Schiner's type, only on the upper part, whence it descends a little along the facial ridge. In two other Cape examples this hairiness is wanting, or is reduced to some ciliae under the frontal setae. One of these (♂) belonging to the Vienna Hofsmuseums, bears the label "*dasyops* Wied.," but does not correspond to Wiedeman's description: "on the pleurae the hairiness is blackish; the legs are black with the tibiae brownish red, etc." To these characters must be added that *C. capensis* Sch. bears 2 pairs of vertical setae, no ascending frontal setae; 4 dc. on the thorax; 4 long median spaced marginal setae on the 2nd abdomin segment; claws of all tarsi elongate.

Gen. ZENILLIA Rob. Desv.

Zenillia sordida, n. sp.

Similar in coloration to *Antistasea fimbriata* Bish; the size is also the same; but it is plainly allied to *Zenillia barbata* Rond., from which it differs in small details only. Black, little shining, weakly sprinkled with ashy on the thorax seen from behind, when there are discernible 4 black lines, with the median ones much spaced. On the abdomen, segments 2 and 3 have a wide, but little defined, similar ashy band narrowing on the 4th. Width of the frons equal almost to $\frac{1}{2}$ that from eye to vertex; the orbits and also the peristome have a bright steel-grey sheen; the frontal opaque brown band is very wide in proportion to the orbits; the dark cinereous genae are narrow; the peristome is about $\frac{1}{6}$ of the width of the eye. Palpi and antennae black, in the latter the 2nd joint is elongated, the 3rd is hardly 3 times as long as the 2nd; chaeta black, 2nd joint a little elongated. Epistome greyish-blue. Upper occiput with small black setae behind the ciliae; the facial ridges bear on $\frac{2}{3}$ of their lower part slender, closely set setae erect in front as in *Z. barbata* Rond.; the frontal setae, more robust in

front, descend irregularly to the level of the antennal chaeta; on each side are 1 long, ascending frontal, and 1 similar inner vertical; the pair of ocellary setae, thrusting forwards, have the same development as the others. The thorax bears 4 dc.; st. = 2 + 1. On the entirely black scutellum are discal erect setae and 3 long marginal on each side, the apical are crossed and slightly bending upwards; in addition there is a pair of long and slender, closely set setae between the 1st and 2nd marginal. Abdomen with marginal and discal setae; with the latter are intermixed numerous shorter and weaker ones. Wings greyish, darkened towards the base. Cubitus of 4th nervure obtuse; apical transverse oblique and almost straight; posterior transverse, **S**-shape, remote from the angle; 1st posterior cell of the wing narrowly open next to the apex of the wing; 2 ciliae at the base of the 3rd nervure; costal spine absent. Squamae dirty yellow; the upper small, the lower broad; halteres testaceous, the club dark. Legs black; anterior claws of ♂ moderately elongate.

Length 7 mm.

Natal, 1 ♂, Durban (H. W. Bell-Marley), S. Afric. Museum.

Zenillia (Pales?) illita, n. sp.

The type is a ♀, 9 mm. long, the head white with a silvery sheen, orbits somewhat ashy grey, flavescent behind, frons rather narrow ($\frac{3}{5}$ the width from eye to vertex) with a broad blackish frontal band. Thorax and scutellum ashy grey; the former with 4 black lines, the latter more or less rufescent on the hind edge. 1st and 4th abdominal segments wholly black, the last moderately shiny, segments 2 and 3 light ashy grey with dark sheen. Wings greyish, fuscous at the base and towards the fore border, the nervures fuscous; cubitus of 4th nervure obtuse, nearly straight, blunt at apex; the apical transverse moderately arcuate, posterior transverse nearly straight. Squamae dirty white, halteres dark, testaceous at base. Legs black. Antennae black, moderately robust, a little shorter than the epistome, 3rd joint barely reaching the length of the 2nd; cheta very long, black, thickened in the basal third, the second joint distinct, but short. Palpi thick in their terminal half, black but with the apex more or less rufescent. Peristome $\frac{1}{7}$ of the width of the eye.

Chaetotaxy: 1 inner vertical ascending seta; 3 slender ascending frontal on each side; 2 frontal setæ below the insertion of the antennae and little projecting beyond the middle of the 2nd joint; vibrissae weak, spaced, the superior reclining, not ascending beyond the 3rd superior part of the facial ridges. Higher occiput without little black

setae behind the ciliae. Two orbital setae; a pair of long ocellary setae pointing forwards. Thorax: 4 dc.; st. 2 + 1. Scutellum with 4 marginal setae, the apical as much elongated as the others and crossed. Abdomen: segment 1 with 4 median marginal setae, the external weak; segment 2 with 2 median; segment 3 with a row of 8 setae. No discal setae with the exception of a few short, irregularly disposed setae on segment 3. Wings: no costal spine; 2 ciliae at the base of the 3rd nervure.

Natal, 1 ♂, Durban, S. Afric. Museum.

I have 2 ♂ examples, one from the Gold Coast (W. H. Patterson), the other from Northern Nigeria (J. W. Scott Macfie), which I would identify with this species if the hind tibias were not densely and regularly ciliate and bore a median seta; they have besides 1 + sternopleural setae and no discal. On segments 2 and 3 of the abdomen are a broad ashy opaque band in front and a narrow black band behind; on segment 2 is a black medio-dorsal line as in the ♀, little visible and evanescent on segment 3. These ♂ ♂ vary also individually; in one, the two first segments are bare; in the other, the palps are partly testaceous. If it were found later that they belong to a distinct species I propose for it the name *Zenillia bicinta* n. sp. If not, the ♀, owing to its incipient discal setae, would be a new proof that the genus *Ctenophorocera* B. B. lacks validity.

I have received from Dr. L. Péringuey 3 ♀ ♀ obtained from hatching, which seem to be the palaearctic *Pales pavida* Meig.; one has only marginal setae on the abdomen (*Ctenophorocera* B. B.), another has 2 short discal setae on segment 3, while in the third these discal setae are well developed (*Pales* R. D.). It follows that in the last-named genus, certain species undergo a reduction affecting not only the length but also the number of the setae. So far as the vibrissae are concerned what is true of *Pales* is also true of *Zenillia* R. D., because in these two genera the separation is not definite, they include extreme forms whereas there are intermediate forms, and as in the ♂ the vibrissae ascend usually higher than in the ♀, one can be led to the absurd conclusion that each of the sexes standing by itself will be included in a different genus. Pandellé is therefore justified in accepting the genus *Zenillia* R. D. only, which moreover has the priority.

PROZENILLIA, n. gen.

I propose this genus for a species having the same coloration as the preceding, the scutellum broadly rufous and the wings hyaline with

the cubitus of the 4th nervure often with a weak umbrate line. The distinctive characters are: the minute anterior claws in the ♂, and the presence of 2 + 2 sternopleural setae. Abdomen without discal setae. Antennae very long, robust, covering the whole of the epistome; 2nd joint very short, 3rd 7 to 8 times as long as the 2nd; antennal chaeta much elongate; 2nd joint distinct; 3rd joint thickened in the basal third, thence slender. Erect, equal, moderately long vibrissae ascend above the great one as far as the centre of the facial ridges.

Prozenillia distans, n. sp.

Black, moderately brilliant on the abdomen; segment 2 with a light ashy anterior band interrupted in the centre and obliterated before reaching the sides; segment 3 with a similar band, but wide and nearly entire, being incised in the centre only; segment 4 wholly shiny black; 2 median marginal setae on the two basal segments. Scutellum with 4 marginal setae, the apical moderately developed and crossed. Colour of thorax and head same as in the preceding species, the first with 4 dc. Frons wider (width equal to $\frac{2}{3}$ of the distance from the eye to vertex in the ♂); 1 outer vertical seta; 1 long, ascending inner vertical seta; 2 ascending frontal on each side, and a pair of ocellary setae thrusting forwards and equally long and robust; 3 frontal setae somewhat spaced below the insertion of the antennae and plainly descending lower than the chaeta. Upper occiput with small black setae at the back of the ciliae. Antennae and palpi black, the latter arcuate and thickened at end. Legs black; hind tibiae (♂) with a row of moderately closely set setae which at first increase from above to below, then regularly diminish in length, this row has a longer seta in the centre. Wings with pale nervures at base; cubitus of the 4th nervure straight or a little obtuse; apical transverse nearly straight and moderately oblique, posterior transverse, slightly flexuose, removed from the angle. Costal spine absent; 2 strong ciliae at the base of the 3rd nervure. Squamae whitish with a yellowish slender border; halteres testaceous, club blackish.

Natal, Durban (H. W. Bell-Marley), S. Afric. Museum.

CHAETOLYDELLA, n. gen.

Fig. 3.

Facies of the genus *Lydella* R. D., owing to its elongated and cylindrical shape; wing with the cubitus of the 4th nervure at right angle or subacute, and provided with a long prolongation as in *Tachina* Meig.; 3rd nervure ciliated to near the small transverse.

The eyes have scattered hairs, and are about equally distant in the two sexes (width $\frac{2}{5}$ that from eye to vertex in the ♂, and $\frac{1}{2}$ in the ♀). The ♂ bears, like the ♀, 2 orbital setae and the claws of the anterior tarsi project little beyond the length of the last joint. Thorax: sternopleural setae = 1 + 1; dorso-central = 3; acrostical setae complete. Scutellum with 4 marginal setae, the apical shorter and weaker, crossed. Abdomen with marginal setae only. Legs long. Head raised; frons moderately convex; epistome oblique below and behind, eyes oblique below and in front; peristome wide (width equal to $\frac{1}{3}$ or $\frac{2}{5}$ that of the eye) and short. Antennae inserted in

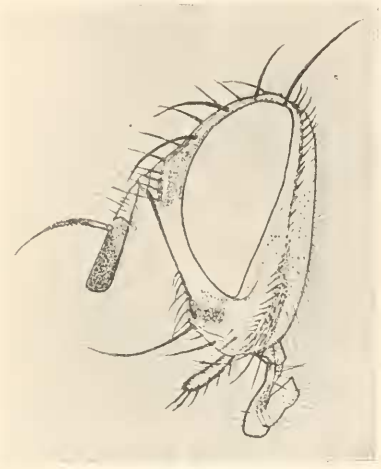

Fig. 3. ♂.

front of the median part of the eyes, more or less shortened above the mouth; 2nd joint elongated, 3rd nearly $2\frac{1}{2}$ the length of the 2nd; antennal cheta moderately long, slightly pubescent, with the 2nd joint distinct but short. Great vibrissae very long, situated on the level of the buccal border, a few short setae ascend along the facial ridges to above the inferior angle of the eye; 1 pair of weak but somewhat developed ocellary setae; 1 inner vertical, 1 prevertical turning backwards and outwards; in front the frontal setae project beyond the insertion of the antennae to the number of 1–2 only. Higher occiput with small black setae towards the median part, and somewhat far beyond the ciliae, these small setae are sometimes wanting. The peristome bears frequently a strong discoidal seta.

CHAETOLYDELLA NATALENSIS, n. sp.

Face with whitish sheen; antennae testaceous, more or less darkened on the 3rd joint; antennal chaeta dark, thickened at the base; palpi moderately thick, pale testaceous; proboscis not elongated, fleshy, with thick labella, wholly testaceous. Orbits equal in width (♂) or wider (♀) than the blackish frontal band, ashy like the thorax and the scutellum; thorax with 2 black dorsal bands, remote from each other and duplicated in the inner side with a narrow line of the same colour; shoulders and free edge of the scutellum rufescent. Abdomen testaceous red and with a broad black medio-dorsal band slightly hidden by pruinose down forming undefined transverse bands with whitish sheen. Segment 1 of abdomen deeply excavated and bare; segment 2 with 2 marginal median setae; segment 3 with an entire row; segment 4 with 2 complete rows, the one discal, the other subapical. Hypopygium retracted, testaceous, the forceps dark. Wings hyaline in the basal half with the nervures yellowish, greyish beyond the middle with the nervure surrounded by a broad brownish border; no costal spine. Squamae cream colour, halteres pale testaceous like the coxae, the rest of the legs bright testaceous except the tarsi, which are black.

The ♀ is distinguished from the ♂ not only by its somewhat wider frons and the minute claws of the tarsi, but also by its darker colour; the black band of the abdomen spreads broadly as far as the sides. Length 12–13 mm.

Many examples from the Cape; Natal, Durban (H. W. Bell-Marley; W. Haygarth); Transvaal, S. Afric. Museum; Nyassaland, Mt. Mlanje (S. A. Neave). Entom. Res. Comm.

LYDELLINA, n. gen.

Fig. 4.

I identify as *Lydellina caffra* Macq. a series of examples varying in size according to localities, and having the abdomen as described and figured by Macquart; but, contrary to Macquart's statement, the face has a border of small, spaced setae ascending more or less high. Nevertheless, I think I am justified in preserving the name of the species, because these setae vary in number, and are even absent in small individuals from the Gold Coast. The characters of the new genus are as follows:

In both sexes the eyes are about equally distant. On the frons are 2 orbital setae; its width at the vertex equals $\frac{1}{5}$ of that of the eye

in the ♂, and 1 in the ♀. The ♂ is recognisable by the elongated claws of the fore tarsi; the narrow black band of segment 3 of abdomen in the ♀ is replaced by a broad, moderately shiny band bearing on the lateral ventral side (the venter is a little compressed in this species), a patch of black, closely set, decumbent hairs corresponding to the ventral patches of the genus *Argyrophylax* B. B.

Thorax ashy slightly flavescent, with 4 dark lines, the lateral line comma shape. Acrostical setae complete; 4 dorso-central setae; 2 + 1 long sternopleural setae. Scutellum with the free edge

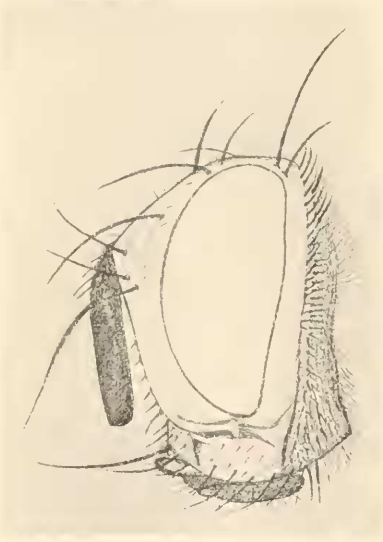

Fig. 4. ♀.

reddish, and with 5 marginal setae, of which the apical, weaker and shorter, are crossed. Abdomen: segment 1 deeply excavated and with 12 weak median marginal setae; segment 2 with 2 more robust median marginal; segment 3 with a complete row of long, spaced setae; no discal setae on any of these segments; apex of segment 4 very obliquely truncate.

Lydellina caffra ? Macq.

The head is moderately high and white; the ocellary region is pale or golden flavescent; the orbits are also more or less flavescent behind, with a blackish sheen; their width is about equal to the black frontal

band. Antennae black, long, covering almost the whole of the epistome; 2nd joint very short, 3rd, 7–8 times as long as the 2nd, but sometimes less in the ♀ ; antennal chaeta long and fine, black, thickened at the base, slightly pubescent. Palpi robust, black, as is also the proboscis, which is thick and not elongated. The frontal setae include: 1 pair of ocellary setae directed forwards, well developed, and even robust in the ♀ ; on both sides 1 pair of vertical setae, the outer ones short, and 2 ascending frontal. Forward, 2 frontal setae reach beyond the insertion of antennae as far as the end of the 2nd joint. Above the very long great vibrissae, short and reclining facial setae ascend generally as far as the centre of the epistome or a little beyond. Upper occiput with a row of small black setae behind the ciliae. Wings slightly greyish or yellowish-grey ; no costal spine ; 4–6 ciliae at the base of the 3rd nervure. Cubitus of the 4th nervure a little obtuse and blunt ; posterior transverse hardly flexuose, distant from the cubitus. Squamae whitish ; halteres testaceous, club dark. Legs black ; tibiae often reddish-brown ; the posterior with unequal setae.

Length 7–13 mm. The small examples (7 mm.) are from the Gold Coast.

Cape Town (L. Péringuey) ; Natal, Durban (F. Leigh), S. Afric. Museum ; Nyassaland.

Gen. PEXOPSIS Br. & Berg.

Pexopsis pyrrhaspis, n. sp.

Wholly ashy grey ; scutellum partly pale rufous ; abdomen with weak, dark beams on segments 2 and 3 which bear behind an obscure band, segment 1 blackish and deeply excavated, segment 4 bright shining red in the terminal half, which is bristling with black setae moderately robust and disposed on 2 rows. Segments 1 and 2 with 2 erect, median, marginal setae ; segment 3 with a row of spaced robust setae.

Head high, greyish white, moderately opaque ; frons projecting, about as wide as the diameter of eye to vertex ; orbits becoming in front wider than the dark frontal band ; face somewhat reclining, facial ridges exposed, projecting, yellowish and with small, closely set setae immediately above the great vibrissae, the latter inserted slightly above the buccal opening. Peristome as wide as $\frac{2}{5}$ of the height of the eye. The broad genae often bear sparse ciliae at the very top as in *Viviania* B. B. Antennae long and narrow, but nevertheless shorter

than the epistome; 1st joints testaceous, 3rd more or less fuscous, and 6–7 times the length of the 2nd; the dark chaeta, which is hardly as long as the antenna, is thickened as far as the end, and the 2nd joint is very short. Palps testaceous; proboscis short. One long, inner, ascending vertical seta, and another short, vertical, external; 2 frontal ascending on each side; ocellary setae as much developed as the frontal; 2 frontal setae descend below the insertion of the antennae as far as the level of the chaeta in the direction of the eyes. Thorax barred with 4 obscure lines, the external semi-colon shape; 4 dc.; st. = 2 + 1; acrostical setae complete. Legs blackish, knees testaceous, tibiae more or less light reddish-brown, posterior with somewhat equal setae with a long median. Wings hyaline; cubitus of the 4th nervure straight, blunt at tip, with the apical nervure moderately arched; the posterior transverse almost straight, distant from the cubitus; 5–6 strong ciliae at the base of the 3rd nervure; costal spine minute. Squamae whitish; halteres testaceous.

2 ♀ ♀ Cape Colony, Kimberley (Bro. J. H. Power), S. Afric. Museum; Nyassaland (J. E. S. Old), Entom. Res. Comm.

This species is closely allied to *P. femoralis* Bez.

Gen. TACHINA Meig.

Tachina duplaria, n. sp.

This species, which varies from 5 mm. (♀) to 9 mm. ♂, is moderately shiny black with 3 whitish circles on the abdomen; scutellum wholly fuscous; thorax sprinkled with white and having the usual black lines, and with the 4 dorso-central setae. Second abdominal segment with 4 median marginal setae (♂), or 2 only (♀), ♂ with a wide blackish frontal band; the narrow orbits are flavescent together with the upper part of the genae, where the frontal setae, numbering 4, descend at least as far as the centre of the epistome; in the ♀ the orbits, almost as wide as the frontal band, are reduced to 2 spaced ones. In the inferior third only the facial ridges bear small reclining setae. The antennae are elongate without reaching, however, the inferior end of the epistome; they are black and the 3rd anterior joint is about 4 times the length of the 2nd (♂), or sometimes less (♀). The obscure palps are rufescent on the edge in the ♂, yellow in the ♀. In the ♂ the hypopygium bears below a brush of bright rufous or pale hairs; at the end of the abdomen is a narrow curette-shape gouge. Wings greyish white with a costal projecting spine, and 4–5 ciliae at the base of the 3rd nervure. Squamae whitish.

Natal, Durban (H. W. Bell-Marley), 1 ♂, S. Afric. Museum; Nigeria; and Nyassaland, Mt. Mlanje, ♂ and ♀, Entom. Res. Comm.

This species must not be mistaken for *T. decidua* Pand., which I have received also from Cape Town. In the ♂ of the latter, the head and orbits are ashy white, the latter are as wide as the narrowed frontal band; the hypopygium has no rufous hairs under the forceps.

Gen. TRICHOLYGA Rond.

Tricholyga impexa, n. sp.

In the collection of the Hofmuseums of Vienna is a ♂ example collected on December 15th, 1896, by Dr. H. Brauns at Uitenhage, Cape Colony. In this ♂, the 1st segment of the abdomen is fuscous, segment 2 flavescent or whitish and intersected by a black mediodorsal line; on segment 3, which is twice as long as the 1st, is a narrow ashy line running along the anterior border and interrupted in the centre, the remainder of the segment is at first moderately bright black with a faint coppery tinge, and after that darkened by very numerous moderately long hairs, closely set and appressed; segment 4 short and black, shining as if varnished. Hypopygium retracted and without a brush of rufous hairs under the forceps. Thorax ashy grey, slightly flavescent, barred with the usual 4 lines; 4 dc., st. = 2 + 2. Scutellum wholly fuscous. Head ashy white, orbits with a flavescent tinge; 4–5 long, spaced frontal setae descending on the genae as far as the middle of the epistome or a little beyond; 3 shorter but rigid setae hang over the large vibrissae. Antennae long, brownish; 3rd joint 4 times the length of the 2nd; the 2nd joint of the similarly coloured antennal chaeta elongate. Palpi yellow, a little infuscate in their outer face. Wings ample, hyaline, pale yellow at the base; 2 ciliae at the base of the 3rd nervure; no costal spine. Squamae somewhat yellowish, halteres obscure, testaceous at base. Legs black.

Length 9 mm.

I have received from M. J. Bequaert a ♂ of the same species from the Congo. It differs merely in the palpi, being fuscous and rufous at apex, and in having a wide posterior band on the 2nd abdominal segment.

MYXARCHICLOPS, n. gen.

This genus belongs to the section *Baumhaueria* B. B. Frons very wide in both sexes (more than twice the diameter of the eye). In addition to having the frontal setae crossed, the orbits are planted with

2 rows of robust, erect setae, one of which, situated at the back of the external row, is longer and turning outwards, and parallel with the outer vertical seta. Two ocellary setae directed outwards and slightly in front. On the genae the 3 rows of the above-mentioned fronto-orbital setae descend convergingly above the antennal chaeta as far as the upper third of the epistome. At the end follow 2–3 small setae situated near the eye, erect or slightly bending forwards. The epistome is somewhat reclining and the buccal border projects as in *Masistylum* B. B.; on the facial ridges is a row of well-developed and moderately even vibrissae ascending as far as the end of the fronto-orbitary setae. The inferior vibrissae reach the edge of the buccal border. The peristome is as wide as one-quarter of the height of the eye. Antennae a little shorter than the epistome; 3rd joint about 4 times the length of the 2nd; chaeta no longer than the antennae and thickening until its terminal third; 2nd joint distinct, but short. The pipette is moderately long, thin and deflexed; palps well developed, thickening towards the apex. The ♂ differs from the ♀ in having a single, long, orbital seta directed forwards. On the thorax the acrostical setae are complete; 4 dorso-central setae behind the suture; sternopleural setae = 2 + 1. On the scutellum are 2 rows of rigid setae, and on each side 4 marginal, the apical ones of which are crossed and half upturned. Abdomen: segment 1 wholly excavated, with 2 median marginal setae; the same on segment 2; segment 3 with a complete row; segments 2 and 3 with uneven irregularly set setae; segment 4 covered with setae. Hypopygium of ♂ retracted. Wings with the 1st hind cell closed or shortly petiolate, sometimes semi-open, cubitus of 4th nervure straight with an umbrate prolongation caused by a dark reflection visible only in certain light; 3rd nervure ciliate at base as far as the small transverse, or nearly so; no costal spine. Legs robust; anterior claws and pulvilli of ♂ minute.

MYXARCHICLOPS CAFFER, n. sp.

A small ashy grey species with whitish sheen on the genae and peristome; orbits slightly flavescent, a little wider than the black frontal band; epistome dark testaceous like the basal part of the antennae, the 3rd joint of which is brownish. Palps yellow, buccal border rufescent. Abdomen: 1st segment black, the others with an ill-defined posterior black band. Wings greyish, pale at the base, nervures fuscous; posterior transverse slightly flexuose, moderately distant from the cubitus. Squamae whitish; halteres yellowish with the club fuscous. Legs black, posterior tibiae with somewhat uneven setae, especially in the ♂.

Length 6–7 mm.

Cape Town (L. Péringuey), S. Western District, S. Afric. Museum; Natal, Mooi River (C. Wroughton), Entom. Res. Comm.

Myxarchiclops (?) maculosus, n. sp.

A single example which seems to be a ♀. I include it provisionally in the genus owing to the bad state of preservation of the frontal setae. The frons is, as in the preceding species, broad with a median blackish band. The grey orbits, as wide as the frontal band, are bare near the eyes, where they are shiny black; there are noticeable 1 posterior frontal seta turned outwards, and 3 robust, orbitary setae directed forwards. The head is swollen as in *Gonia*, with the genae wide, a little broader above than below, where they are as wide as the peristome. The robust ocellary setae are disposed transversely; 4 frontal setae disposed in a very arcuate row ending near the eyes descend on the genae; immediately under are 2 4 erect setae disposed in a vertical row somewhat fan-shaped and preceded by sparse ciliae, in the manner of the preceding species. Epistome slightly reclining, and hardly projecting at the mouth; along the facial ridges, which are straight and testaceous, are somewhat reclining vibrissae ascending to the upper fifth. Antennae narrow, very long although abbreviated above the mouth, testaceous; 3rd joint fuscous towards the apex, and from 6 to 7 times as long as the 2nd; cheta moderately long (*i.e.* as long as or very little more than the antenna), thickening towards the apex and blackish, with the 2nd joint elongated and a little bent on the 3rd. Palpi filiform, yellow. Proboscis as in *M. caffer*.

M. maculosus is a robust species like the palaearctic *Gonia*, and bright opaque ashy grey. The colour of the abdomen leads to its identity: segments 2, 3, and 4 with 2 large well-established black spots situated on the hind border of each side of the median line, and continued laterally as far as the venter by a thin black line. Discal setae uneven and irregular, 2 marginal median setae on segments 1 and 2; an interrupted row in the centre between the black spots on segment 3. Thorax with 4 narrow black bands; acrostical setae in right number in front of the suture; 4 dorso-central setae; sternopleural = 2 + 1. Scutellum partly rufescent, with 3 marginal and 1 apical, robust but broken setae on each side. Wings more or less greyish, pale at the base, and with a median costal spine. Third nervure with some spaced robust ciliae at the base; cubitus of 4th nervure bent at right angle with an umbrate prolongation; apical central soon arched and inclined; 1st hind cell narrowly open before the apex of the wing; posterior

transverse sinuous, moderately distant from the above-mentioned cubitus. Squamae whitish; halteres yellowish, club fuscous. Legs black; tibiae often brownish-red.

Length 12 mm.

Cape Colony, Springbokfontein (R. M. Lightfoot), S. Afric. Museum.

TRIXOCLEA, n. gen.

Fig. 5.

This genus is founded for a species with a bright violaceous metallic tinge belonging to the section *Trixa* B. B. The head is that of a

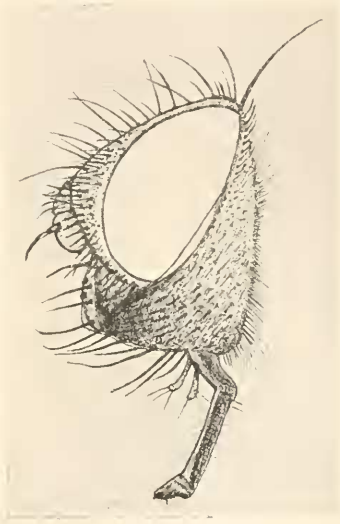

Fig. 5. ♂.

Trixa Meig. with the eyes bare and a little distant; the short palps and the general facies recall *Fortisia* B. B. and *Loewia* Egg.; the wing is that of *Zeuxia* Meig., having the 1st posterior cell with a long petiole, and the 4th nervure prolonged beyond the cubitus. Genae with an oblique row of small rigid setae, at the back of which are numerous ciliae disposed on two irregular rows; the frontal setae descend as far as the half of the 2nd antennal joint. Thorax with two pairs only of acrostical setae in front of the suture, the hind pair is wanting; 4 descending setae; sternopleural = 2 + 1. Scutellum with 5 long marginal setae, the apical of which are crossed. Abdomen with segment 1 bare, the excavation limited by a border behind; segments

2 and 3 with 2 median marginal setae. Claws with the anterior claws of ♂ moderately elongated.

Trixoclea metallica, n. sp.

Has a broad purple sheen round the thorax, forming bands on the tergum, covering almost the whole of the scutellum, the anterior half of the abdomen, the sides and the whole venter: a colouring which is doubtless variable. The genae are ashy white, the orbits and the occiput are slightly violaceous, green or purple. Antennae and palps testaceous; antennal chaeta fuscous with the first two joints distinct but short. Proboscis thin, deflexed, mostly wholly black. Wings clear, yellowish at the base and along the anterior border, where the nervures, which elsewhere are black, are yellow; no costal spine; 5–6 ciliae at the base of the 3rd nervure. Squamae whitish, halteres testaceous, the club fuscous. Legs robust, black.

One ♂. Zululand, M'Fongosi (W. E. Jones), S. Afric. Museum.

PARARONDANIA, n. gen.

Antennae testaceous, short, projecting little beyond the epistome, joints 2 and 3 equal, 3rd blackish. The chaeta is also black, thickened at the base, the 2 first joints distinct, but short. Palpi cylindrical, testaceous, dark at apex. Frons a little wider than the eye, with the sides parallel, and having a brownish median band twice wider than the orbits, which are grey and bear 2 orbital setae. The ashy white face is somewhat constricted by the eyes, and shorter than the frons; genae and peristome narrower than the orbits. The lower border of the eyes is on the level with the buccal, the great vibrissae is inserted a little above it and surmounted by two small setae. No frontal setae except one projects beyond the insertion of antennae. Wings similar to the genus *Styloneuria* B. B.; cubitus of 4th nervure obtuse; 1st hind cell with a short petiole reaching almost to the apex of the wing; right posterior transverse equi-distant from the cubitus and the small transverse; costal spine long and projecting; 1–2 ciliae at the base. Squamae whitish; halteres wholly yellow. The face narrower than the frons, as well as the narrowed epistome, the absence of setae on the scutellum, and the neuration of the wings, are characteristic of the genus, and separate it sufficiently from *Rondania* R. D.

Pararondania multipunctata, n. sp.

♀. A small, pretty opaque grey species marked with round, well-defined patches, namely: 4 on the thorax, 2 in front of the suture,

separated by 2 parallel black lines, 2 behind the suture, and 8 on the abdomen, 2 on each segment; in addition there is a quite lateral spot on segments 2 and 3. Legs brown, trochanters and intermediate and posterior tibiae testaceous. Frons with two vertical setae on each side; 1 pair of well-developed ocellary setae. Thorax with the acrostical setae complete in front of the suture; 3 long dorso-central setae; sternopleural setae 2 + 1, the antero-inferior piliform. Scutellum with 1 lateral seta and 1 long and diverging subapical; no apical setae. Abdomen: segment 1 very thick at the back of the moderately deep excavation, and with 2 median marginal setae; segments 2 and 3 with a complete marginal and 2 discoidal rows, the latter continued right and left by smaller and weaker setae set in a regular line.

Length 3 mm.

1 ♀, Cape Colony (George), S. Afric. Museum.

THELAIROSOMA, n. gen.

Fig. 6.

Same shape as *Thelaira*; head nearly similar. Differs: (1) by the absence of discal setae on the abdomen; (2) the naked 1st nervure of the wings; (3) the presence of 2 + 1 sternopleural setae.

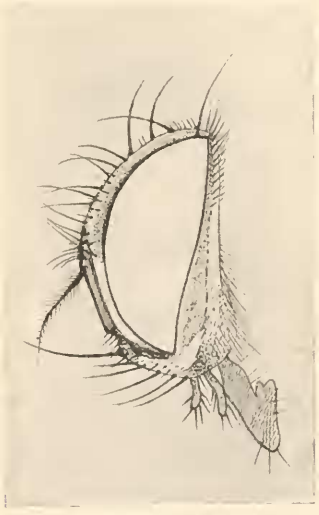

Fig. 6. ♂.

Thelairosoma fumosum, n. sp.

♂. Head white; the width of the vertex is $\frac{1}{3}$ that of the eye; the black frontal band broadens in front, and is there wider than the orbits; proboscis, palps and antennae black, antennal chaetae black and short, plumose; frontal setae descending on the genae as far as the apex of the 2nd antennal joint. Thorax pruinose white with 2 broad dorsal bands prolonged on the pruinose scutellum; the latter with a pair of apical, crossed setae; thorax with 4 dorso-central setae. Abdomen black; segments 2, 3 and 4 with a moderately broad whitish band in the anterior part; segments 2 and 3 more or less tinged with reddish on the sides; 1 pair of median marginal setae on segments 1 and 2. Wings fumose along the anterior border, and round the cells which are thinned on the level of their insertion and more so at their end. Two ciliae at the base of the 3rd nervure. Squamae whitish; halteres testaceous, the club obscure. Legs black; claws of anterior tarsi elongated.

The ♀ resembles the ♂; the frons is a little wider and bears 2 orbital setae; the anterior tarsi are slightly dilated and the claws very minute; the abdomen has no reddish marks on the sides.

Length 7–11 mm.

Natal, Durban, several examples (H. W. Bell-Marley), S. Afric. Museum; Nyassaland, Mt. Malanje, numerous examples (S. A. Neave); Gold Coast, Abura (W. H. Patterson), Entom. Res. Comm.; N.W. Tanganyika, 1 ♂ (Grauer), Hofmuseums, Vienna.

Sub-Fam. DEXIINAE.

Gen. ERIOTHRIX Meig.

Eriothrix experrectus, B. B. in Litt.

Of this species I saw 3 ♂ ♂ only, the characters of which can be resumed as follows: Species oblonga; thorace nigro; abdomine flavotestaceo, paululum albo-pruinoso, vitta media nigricante atque setosis numerosis instructa. Alis hyalinis, spina costali sat valida et erecta, nervo 4° post cubitum appendiculato, cellula 1, a saepe clausa atque breve petiolata. Pedibus brunneis, unguibus omnibus in ♂ elongatis. Capite albido-micante; orbitis angustis; vitta frontali lata atque ferruginea; antennis testaceis, articulo 3°, atricante secundo non longiore. Palpis flavis; haustello corneo, porrecto.

Length 9–10·5 mm.

Cape of Good Hope.

The resemblance of this species to the genus *Eriothrix* is only superficial. On the testaceous scutellum obscure at the base are 4 long and robust marginal setae, the apical crossing each other; the thorax with 3 dc. has in front 2 pairs of acrostical setae only, the hind one is wanting; on the other hand there are 3 complete pairs at the back of the suture. Sternopleural setae = 2 + 1. On the vertex there is only the pair of inner, crossed, vertical setae, and a pair of postvertical well developed and arching forwards; the width of the frons at this level is $\frac{1}{6}$ of the eye, and its narrowness is the cause of the triangular shape of the frontal band; the frontal setae reach the inferior third of the 2nd antennal joint, which is elongated; the 3rd joint is not dilated and equal in dimension to the 2nd. The black cheta is thickened at its basal half; the length is scarcely $1\frac{1}{2}$ that of the antenna; the 2nd joint is distinct but short. The cylindrical palps do not reach the buccal border, while the somewhat thin and horny proboscis reaches a little beyond it. The moderately wide epistome is about $\frac{2}{5}$ that of the eye. Higher occiput with 1–2 rows of small black setae behind the ciliae, eyes hairy. The 1st segment of the abdomen is deeply excavated and bare; the other segments bear 2 or more pairs of setae gathered on the black medio-dorsal band, which does not reach the apex; the apex of the 4th resumes the uniform testaceous yellow tint, which is also that of the hypopygium. Wings hyaline, nervures almost entirely pallid; cubitus of the 4th V-shape, and with a short, real prolongation as long as the petiole of the 1st posterior cell; hind transverse S-shape; base of the 3rd nervure with 6 ciliae; costal spine projecting; squamae whitish; halteres dark. The petiolate posterior 1st cell, and the projecting costal spine induced Brauer and Bergenstamm to include this species in the genus *Eriothrix* Meig.; but it is evident that all the other characteristics militate against this opinion, and lead to the genus *Erestia* R. D. The external shape of the hypopygium (unprepared) seems to confirm this conclusion; in a fourth ♂ example which I just examined the 1st hind cell of the wing is broadly open.

PYRRHOSIELLA, n. gen.

Fig. 7.

Eyes bare, distant, the width of the frons at the vertex is $\frac{2}{3}$ that of the eye. No ocellary setae, no external vertical setae; 1 orbital seta only directed forwards; the frontal ascending setae number 3, 1–2 advancing on the genae as far as the middle of the 2nd antennal club. Head high; face vertical, a little concave, with long antennae, the 3rd

joint of which is 5–6 times the length of the 2nd. Palps short, not projecting much beyond the half of the buccal opening; proboscis moderately thin, usually deflexed. The great vibrissae are set on the level of the buccal border. Genae and peristome narrow. Thorax with 2 pairs only of acrostical setae; the 2nd pair (intermediate pair) in front of the suture, the hind pair in front of the scutellum. Three dorso-central setae; sternopleural = 1 + 1. Scutellum with only 2 long marginal setae, one lateral, short and weak, the other subapical, long, robust and diverging, no apical setae. Abdomen: All the segments, even the ultimate, with long and erect marginal setae only;

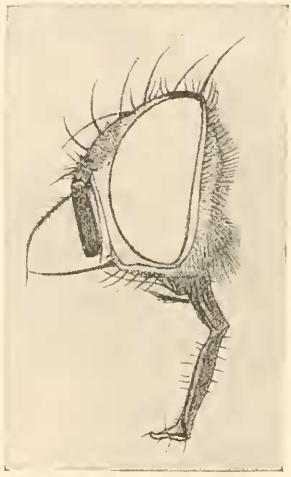

Fig. 7. ♀.

segments 1 and 2 with 2 median setae; segments 3 and 4 with a complete row; segment 1, elongate and thinned in front, thickens behind the mediocre excavation. Wings with the 1st hind cell open to the apex of the wing; the cubitus of the 4th nervure is obtuse and more or less rounded; apical transverse straight, then bent parallel to the 3rd nervure; posterior transverse distant from the cubitus; lastly the 3rd nervure is ciliated often to the neighbourhood of the small transverse. Inferior squamae very developed and with a visible border. Legs long; anterior tarsi longer than the tibiae and slender; anterior claws minute.

To sum up, the genus would fall in *Atylostoma* B. B. (see the detailed description of the genus by Brauer and Bergenstamm (Kat.

Palaearc. Dipt., 1, p. 138), if the frons did not bear an orbital seta in both sexes, which is the main characteristic of the new genus *Pyrrhosiella*.

Pyrrhosiella cingulata, n. sp.

P. cingulata is a black species. Head white, but shining black on each side of the vertex; antennae and chaeta black, the latter slightly pubescent, long and fine and thickened beyond the first third; palps thinned towards the apex, brownish; proboscis black. Thorax with a thick white indumentum on the pleurae, slight on the tergum where 2 undefined black bands fused behind the suture are visible. Scutellum black. Abdomen black with 3 white bands prolonged under the venter, on which is also a white band under segment 1. Wings greyish or brownish; hind transverse straight and nearly perpendicular; no costal spine. Squamae whitish; halteres entirely yellow. Legs black, a band of white indumentum on the external face of the thighs. This species is widely spread in Africa, from the Tropics to the South. The body is as elongated as that of the *Ocyptera*. The two sexes are quite alike and can be recognised by the examination of the genitalia only.

Length 8–9 mm.

Two examples from Natal, Durban (H. W. Bell-Marley), S. Afric. Museum; French Congo (E. Roubaud); Belgium Congo (J. Bequaert); Sierra Leone (J. J. Simpson); Gold Coast (W. H. Patterson); Nigeria (Dr. Ingram, T. F. G. Mayer, J. W. Scott-Macfie); Nyassaland, Mt. Malanje (S. A. Neave).

ASBOLEOLA, n. gen.

I deem it useful to describe here 2 species common in the tropical region, and the affinities of which with the precedent genus are manifest. The general characters are identical; the difference is in the less raised head, and shorter antennae; the width of the frons in the ♂ measures half that of the eye, and there are no orbital setae; that of the ♀ is a little wider and there are 2 orbital setae. Fourth abdominal segment with a row of small discal setae. First posterior cell opening in front of the apex of the wing. The anterior claws of the ♂, instead of being very short, are as long as the ultimate tarsal joint, or reach slightly beyond. The species are of larger size and form a group belonging to the section *Psendodexidae degeeriaeformes* Br. & Berg. *Pyrrhosiella* belongs to the same group.

Asboleola elegans, n. sp.

♂. Head white; orbits fuscous behind, more or less tinted with flavescent golden in front, a coloration which spreads on the genae; peristome greyish blue. Thorax with the tergum somewhat shiny black, like the scutellum; shoulders and pleurae with a whitish indumentum. Abdomen with the 2 first segments dark opaque, somewhat shiny on the last ones; segments 2 and 3 reddish on the sides and on the venter; a wide, cream-white, very thick band on the anterior part of segment 3, narrowed on segment 2, slightly greyish blue and not very noticeable on segment 4. Wings moderately ample, clear at base, then soon infuscate along the nervures; posterior transverse a little oblique, weakly sinuose. Squamae whitish, the inferior with a thick white or yellowish border. Halteres wholly yellow. Legs long and black.

♀. Facies and colour of *Pyrrhosiella cingulata*, but distinguished from it by the larger size, the 2 orbital setae, the fuscous nervures of the wings and the small discal setae on the 4th abdominal segment.

Length 10–11 mm.

Nyassaland, Mt. Mlanje (S. A. Neave). Numerous examples.

Asboleola angustipennis, n. sp.

I have seen ♂ ♂ only of this species. They differ from the preceding species merely by the longer and very narrow wings, which are more uniformly smoky, with the more oblique apical and posterior transverses, and by the abdomen, which is black, without trace of red on segments 2 and 3.

Length 11–12 mm.

The validity of this species is not well established; in a ♂ from Ruvenzori, collected by Dr. J. Bequaert, the abdomen is that of *A. angustipennis*, and the wings those of *A. elegans*. It is probable that the genus *Asboleola* is also represented in South Africa.

Belgian Congo (J. Bequaert); Sierra Leone (J. J. Simpson); Uganda, Entebbe (C. C. Gowdey).

Gen. PHOROSTOMA, Rond.

Phorostoma rutilans, n. sp.

Several ♂ examples with the facies of the palaearctic *Gymnodexia triangulifera* Zett; but with 2 + 1 sternopleural setae, and the abdomen reddish and without black triangular spots. Segments 1 and

4 obscure, segments 2 and 3 covered with pruinose, moderately thick bright ashy grey down sectioned by a black, medio-dorsal black line. On segment 2 a bare, reddish posterior band with obscure sheen, impinges on the pruinose down on each side of the median line, advances to the neighbourhood of the anterior border, and forms there 2 changing, ill-defined spots visible only in certain light. On the sides the colour is pale red on the first 3 segments, which on the venter side are edged behind with brownish and clothed with a thick whitish pruinose down; 4th segment wholly obscure. Head as in *Phorostoma subrotundatum* Rond.; and with the antennae also obscure-testaceous at the base; palpi testaceous. Thorax ashy and with the same bands; wings identical, 4 dorso-central setae on the thorax; 1 pair of long, median marginal setae on abdominal segment 2; segment 1 bare. Legs black; anterior claws equal in length to that of the last tarsal joint; posterior tibiae moderately regularly ciliate with a long median black seta.

Length 9–11 mm.

Several ♂ examples from Natal, S. Afric. Museum.

OXYMEDORIA, n. gen.

Fig. 8.

This new genus is founded on a black species annulated with white on the abdomen, and belonging to the same group of *Pseudodexiidae degeeriaeformes*.

♀. The proboscis long, thin, directed forwards, palps a little thickened and projecting in front of the mouth. Face oblique and slightly concave; frons prominent; genae growing linear below, like the peristome. Antennae elongate, with a long and fine chaeta thickening towards the base and carrying ciliae longer than the diameter at its widest part. Two orbitary setae; 1 pair of vertical setae, the inner crossed with that of the opposite side; 1 single frontal seta above the insertion of the antennae; ocellary setae wanting, or piliform. Thorax with 2 pairs only of short and weak acrostical setae as in *Pyrrhosiella*; 3 dorso-central setae; sternopleural = 2 + 1, the antero-inferior weak, in addition to the lateral seta and the long subapical setae the scutellum bears a pair of less long, crossed apical ones. Abdomen similar to that of the preceding species, but with a pair of discal setae on segments 2 and 3. On the 4th, the example has one discal seta only; this seems to point to the marginal setae alone being constant. Wings with a costal, projecting, moderately long spine, the cubitus of the 4th nervure obtuse and sub-rounded; the posterior cell open almost to the apex of

the wing. One long cilia at the base of the 3rd nervure; posterior transverse distant from the cubitus.

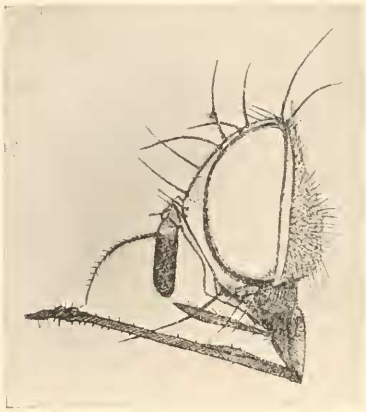

Fig. 8. ♀.

Oxymedoria palpata, n. sp.

Head white; frontal band black, narrow, width of vertex equal to $\frac{2}{5}$ of that of the eye; antennae black, a little ferruginous at base; palps and proboscis brown. Thorax with a whitish indumentum, thick on the shoulders and the pleurae, slight on the thorax, where are seen 2 black bands in front of the suture and uniting behind. Scutellum and abdomen black, the latter with a white anterior band on segments 2 and 3, but interrupted in the centre; segments 1 and 2 reddish on the venter and the sides. Wings slightly whitish, and more deeply so along the anterior border. Squamae whitish; halteres wholly yellow. Legs brownish black.

One ♀, North Nigeria, Oshogbe (Dr. T. F. G. Mayer), Entom. Res. Comm.

Gen. OCYPTERA Latr.

Ocyptera flavibasis, n. sp.

Antennae short, hardly projecting beyond the middle of the epistome; wings wholly fuliginose, yellowish at the base only; abdomen light testaceous yellow, black at the base, on the hind third of the penultimate segment, and on the whole of the last, which has a pruinose whitish border. On segment 2 the median marginal pair of setae is

inserted towards the centre of the segment, and has thus become discal; 2 marginal median setae on segment 3; no discal setae on any of the segments. Head white with a broad blackish frontal band; antennae and proboscis black, the latter not elongate. Thorax black, slightly whitish pruinose above, but densely on the pleurae; tergum with the usual dark bands, 2 dorso-central setae beyond the suture; sternopleural = 1 + 1. Scutellum with a long lateral seta, and weak, apical, crossed ones (the larger of 2 ♂ examples bears also a short and weak lateral seta in front.

Wings with the cubitus of the 4th nervure obtuse and without appendage; the apical transverse straight; the posterior transverse distant from the cubitus and sinuose; the small transverse equal to the mediastinal cell of the wing. Squamae white; halteres testaceous. Legs black; anterior claws of ♂ moderately elongate.

Length 7–9 mm.

Two ♂ ♂, Transvaal, Barberton (H. Edwards); Zululand, M'Fongosi (W. E. Jones), S. Afric. Museum.

Sub-Fam. SARCOPHAGINAE.

Gen. APODAERA Macq.

Apodaera natalensis, n. sp.

Head slightly yellowish, but with a white sheen on the face; frontal band wide, honey colour; orbits narrow; width of vertex equal to $\frac{4}{5}$ of that of the eye; antennae yellow, nearly filling the whole cavity, 3rd joint hardly 4 times the length of the 2nd; chaeta yellow, black at tip; palps yellow. Five orbital setae; 1 isolated vibrissa. Thorax ashy flavescent; the free border of the scutellum pale testaceous; abdomen testaceous red, the last 3 segments marked with 3 large black maculae. Legs of the same colour as the abdomen, base of anterior and intermediate femora blackish; last joints of tarsi infuscate. Wings clear; nervures pale at base; halteres whitish.

Length 5 mm.

Natal, 1 ♀, Durban, S. Afric. Museum.

Apodaera dispar, n. sp.

Head white; frontal band honey colour, narrower than the orbits; width of vertex equal to the diameter of an eye. Antennae yellow, stopping at the inferior third of the cavity; 3rd joint barely reaching the length of the 2nd; chaeta yellow, black at apex; palpi yellow.

Five orbital setae; 1 isolated vibrissa. Thorax iron grey with thick whitish indumentum on the pleurae, pruinose on the tergum. Scutellum as on the tergum. Abdomen black, moderately shiny, with a white band on the anterior part of segments 2 and 3, narrow on segment 4. Wings clear, nervures pale at the base; squamae whitish. Legs black; knees, anterior tibiae in their basal half, and intermediate and posterior wholly testaceous; posterior face of femora with whitish indumentum.

Length 5½ mm.

Cape Colony, Algoa Bay (H. Brauns), Hofmuseums, Vienna.

Gen. CRATICULINA Bezzi.

Craticulina taeniata, n. sp.

Head with dark orange sheen varying according to light, antennae and chaeta black; palpi yellow. Thorax ashy flavescent, like the scutellum, the free border of which is whitish or reddish. Abdomen testaceous yellow; 4th segment black, shiny in its hind half, obscure grey and opaque in front; 3rd with a white shiny black hind band; 2nd with a similar but narrower band. In addition a black mediodorsal band partly concealed by the pruinose down crosses segments 2 and 3, and joins again the excavation of the first, which is blackish. Legs wholly black. Wings clear, nervures pale at base; squamae whitish.

Length 5½ mm.

One single example, seemingly a ♀, Zululand, M'Fongosi (W. E. Jones), S. Afric. Museum.

Gen. MILTOGRAMMA Meig.

Miltogramma helvum, n. sp.

Several examples (♂ and ♀) in the collection of the Hofmuseums of Vienna. The ♂ ♂ are labelled "*caffra* Wied. in litt."; the ♀ ♀ "*helva* B. B." It is a distinct species, easy to recognise owing to the light yellow abdomen, and the segments 2 and 3 bearing 6 black spots, the median of which are near each other, obscure, and often almost obliterated, the lateral are wider spaced and shiny; segment 4 with only 3 spots. In the ♀ the abdominal spots are narrowed and evanescent. Scutellum of the colour of the abdomen, often rufous on the free border; thorax more ashy with 4 obscure bands replaced by 3 at the back of the suture. Head yellowish-white: frontal bands

nearly orange, wider than the orbits; width of vertex = $\frac{1}{5}$ that of the eye. Antennae yellow, reaching only the lower $\frac{1}{4}$ of the cavity; 3rd joint hardly twice the length of the 2nd; antennal chaeta black; strongly thickened at the base; palpi yellow. The inferior level of the eyes is plainly below the anterior buccal border. Legs brownish; in the ♂, the joints of the anterior tarsi bear a small internal seta.

Length 7–8 mm.

Cape of Good Hope.

Gen. SETULIA Rob. Desv.

Setulia fasciata Meig.; obscurior, angustifrons, n. vars.

The facies of the African representatives of this species is somewhat variable. The red colour of the sides disappears almost totally on the abdomen of the ♂ ♂; the orbits are golden yellow, as is also the upper part of the genae; the antennal chaeta is so elongate as to project occasionally beyond the antennae; the latter is often short, and the great vibrissae are then a little more raised. These remarks apply also to examples from the coast of Malabar, although in the ♂ ♂ the abdominal sides remain more or less broadly reddish. These variations do not justify making a new species, but one must see in the African and Asiatic forms a variety which I call "*obscurior*," the more so that on the side of the thorax the tergum becomes obscure at the back of the suture, and the scutellum wholly black, so that the dark lines so well defined in the palaearctic *S. fasciata* are only visible in the anterior part of the tergum.

Two other examples, a ♂ from South Africa, and 1 ♀ from the Belgium Congo represent another variety, *i.e. angustifrons*. Here the frons is narrower; the orbits, which are white like the face, are wider than the narrow frontal band, or at most equal in width. The antennae are of normal length.

Gen. HOPLOCEPHALELLA Vill.

Hoplocephalella grisea, n. sp.

The ♂ is at once recognised from *H. signata* Vill.: (1) by its smaller size and more slender build; (2) by the different coloration of the thorax and scutellum, the latter being black and the dark grey thorax bearing 5 black bands; (3) by the ashy white head, with the frons hardly equal to $\frac{2}{5}$ the distance from eye to vertex, and not much broadening in front, so that on the whole it is narrower; the frontal

blackish band is as wide as the orbits. Antennae and palps black; antennal chaeta brownish red in the centre, the ciliae short, about equal to the thickening of the chaeta at the base. Abdomen light ashy; 1st segment black, the others with 3 series of long triangular black spots; on the venter is a row of large rectangular spots on each side of the median line. Legs black; wings hyaline; squamae whitish.

The ♀ resembles completely the same sex of *H. signata;* in both the thorax and the scutellum are light ashy grey, on the first are 3 dark bands the median of which is continued on the second; the hairs on the eyes are short; the abdomen bears the same spots as in the ♂, but they are less developed, and the spots on the venter are always in the shape of an elongated triangle. In *H. signata* ♀ the frons is broad and moderately convex; the orbits are of the same width as the frontal band.

A ♂ received from the Belgium Congo differs by the frontal bands diverging backwards; the antennal chaeta thickened as far as the centre and simply pubescent. The thorax is light ashy grey with 3 dark lines, the 2 lateral of which are indistinct as in *H. grisea* ♀. The scutellum is also light ashy, but the abdomen is similar to that of *H. grisea* ♂. This example may be abnormal; the frontal lunule is set very deeply in the frons, and there is pair of weak ocellary setae.

HOPLOCEPHALINA, n. sub-gen.

I find it necessary to make a new section in the genus *Hoplocephala* for a species having, as in *Hoplocephalella*, frontal setae complete and directed in the same manner, and the abdomen marked in both sexes with 3 rows of black triangular spots. In *Hoplocephalina* there is a total absence of acrostical setae on the thorax, except for a weak pair in front of the scutellum; the hairiness of the genae is crossed by an oblique row of setae, short on the upper part but increasing in length on the lower, and reaching almost that of the frontal setae. Eyes villose; frons wide, without ocellary setae in the ♂, but with a well-developed pair in the ♀; frontal band of about the same width in both sexes, a little narrower than the orbits in the ♂, twice narrower in the ♀.

Hoplocephalina maculosa, n. sp.

Ashy grey in both sexes; the abdomen, as usual, is depressed in the ♀. Thorax with 4 lines in front, replaced behind by 3, the median of

which is continued on the scutellum. The venter is moderately shiny black in the ♂, ashy on the greater part and without spots in the ♀. Head greyish in the ♂, whitish ashy in the ♀ ; antennae, palpi and legs black. Wings hyaline, and conforming to *Hoplocephalopsis* ; the costal spine is projecting.

Length 9–10 mm.

Natal, 9 examples, Durban (H. W. Bell-Marley), S. Afric. Museum.

Hoplocephala maculosa, var. pubera, n. var.

The genus *Hoplocephala* Macq. contains numerous kinds with all kinds of facies in the ♂ ; but almost uniformly ashy with rows of triangular black spots on the depressed abdomen in the ♀ ; as shown by sundry new sub-genera established by me. As a result of this the determination of the ♀ ♀ is difficult ; and as for the ♂ ♂, especially in the sub-genus *Hoplocephala s. strict.*, the varieties are not easy of recognition. There appear to be species with naked eyes ; I have seen one such case, a ♂ from Entebbe, Uganda. It might be mistaken for *H. maculosa*, yet it is distinct owing to the genae with sparse and short hairs, and the weak setae of the oblique row ; the median black spot of the 3rd abdominal segment is replaced by 2 black parallel bands set close to each other. On the ventral side, the presence is noticeable of a long pilosity which starting from the posterior border of segment 3 and from the sides of segment 4, is directed towards the median line of the latter and forms there an elongate tuft in front of the genitalia.

Gen. HOPLISA Rond.

Hoplisa novicia, n. sp.

Similar to *H. xanthocephala* Bez. and of the same size ; differs only by the head. The latter seen in profile is broader than high ; the peristome is almost half less wide ; the antennae are wholly black ; the orbits are greyish blue, the genae whitish ashy, the median frontal band and the medians orange yellow.

Transvaal, Barberton, 2 examples (H. Edwards), S. Afric. Museum ; Cape of Good Hope, 1 example, Hofmuseums, Vienna. I have several examples of *H. xanthocephala* Bez. from Cape Town, S. Afric. Museum.

Fam. ANTHOMYIDAE.

Sub-Fam. MUSCINAE.

Gen. PYRELLIA Rob. Desv.

Pyrellia nudissima Loew, aurantiaca, n. var.

Differs from the typical form by the violet with purpurine sheen of the thorax and scutellum ; the abdomen wholly testaceous orange, the antennae, palpi and legs brownish red, but the latter are black at the knees and on the tarsi, and the hyaline wings having an anterior black border which fills first the mediastinal cell, becomes interrupted, and reappears as far as the 1st posterior cell inclusively after making a notch beyond the apex of the 2nd longitudinal nervure.

One ♀, Natal, Durban (W. Haygarth), S. Afric. Museum.

Pyrellia nudissima Loew, limbata, n. var.

Near the preceding variety comes another ♀ from the Belgium Congo communicated by Dr. J. Bequaert.

Similar to the typical form, but the wings show a broad anterior border extending on the space included between the edge of the wings and the 3rd longitudinal nervure, and ending in the 1st posterior cell.

Gen. MUSCA, Lin.

Musca natalensis, n. sp.

According to the Authors the ciliation of the 3rd nervure to beyond the small transverse nervure on the inferior face of the wings belongs exclusively to *Musca lusoria* Wied. It is not so, however, and there are other species which share this characteristic, namely *M. aethiops* Stein (although it is not mentioned by the author) ; *M. pattoni* Aust. ; and also the larviparous species mentioned by Roubaud under the name of *M. corvina*, and which, after comparison with hatched examples, seems to me to be a varietal form of *M. pattoni*, etc. I know also of two African species in which this ciliation occurs ; they both belong to the group of the genus *Musca* in which the thorax has two wide black bands only. The first is described here as *M. natalensis*.

Size and shape of *M. lusoria* ; head similar ; thorax and scutellum shiny black ; a white median band on the tergum, which after the

suture narrows and disappears before reaching the scutellum. On the sides is another whitish band, broad from the shoulders to the suture and narrow behind. Abdomen testaceous yellow; excavation of segment 1 black, a narrow medio-dorsal similarly coloured band springs from it, crosses the segment, spreads a little upon the first incision in the shape of a thin black line, intersects further the 2nd and 3rd segments, being either whole or reduced to a triangular spot on each, and ends in a transverse black line on the 3rd incision.

On each side of this band there exists an elongated spot with white sheen; on segment 4, the absent black band is occupied by 4 spots with whitish sheen. Hypopygium black. Wings as in *M. lusoria*; squamae fulvous. Wings as in *M. lusoria*, halteres fulvous. Legs black, robust, anterior claws moderately elongated.

Four ♂♂, Natal, Durban (H. W. Bell-Morley, W. Haygarth), S. Afric. Museum.

Musca congolensis, n. sp.

This is the second species mentioned above, and founded on a ♂ example.

Smaller and less robust than *M. natalensis*; the facies is almost wholly that of *M. humilis* Wied. (= *angustifrons* Thoms.). It differs from the latter by the spaced ciliae of the 3rd nervure on the inferior side of the wing which are situated beyond the small transverse nervure; it differs also from *M. natalensis* by the abdomen, similar to that of *M. humilis*; that is to say, the 1st segment is wholly black above. *M. congolensis* ♂ is also noticeable by its very elongated anterior claws and by the apical part of the protarsus of the intermediary legs, which is gradually thickened on the inner side.

One ♂, Belgium Congo (J. Bequaert).

Signor Bezzi has endeavoured to give a table of the African species of the genus *Musca* (Boll. Labor. Zool. Gen. and Agr. vi, 1911, p. 85, Portici) from the descriptions alone of ancient authors. I may be allowed to point out how little reliance is to be placed on the interpretation of these descriptions, too often common-place, by mentioning that *M. albomaculata* Macq. type ♀ = *M. dorsomaculata* Macq. types ♂ — ♀ = *convexifrons* Thoms. One ♂ and one ♀ labelled *M. rufiventris* (No. 73) in Macquart's handwriting are the same species. They bear a blue label, denoting their African origin, and thus doubtless differ from *M. rufiventris*, described by Macquart as a Brazilian species.

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